

**Claims:** We claim:

1) An unsolicited message rejecting communications processor connected to message transfer agents

MTA\_0 with an Internet address of IP\_0, from-address A\_0, declared domain of D\_0, and actual domain of DD\_0, and

MTA\_1 with an Internet address of IP\_1 and to-address A\_1

comprising:

- a) monitoring means for monitoring the communications between MTA\_0 and MTA\_1;
- b) determining means for determining if the communications contains an unsolicited message; and
- c) intercepting means for intercepting a .\r\n end-of-message indicator reply from MTA\_0, forcing MTA\_0 to QUIT its connection with MTA\_1 by sending an error reply to MTA\_0 if the message is determined to be unsolicited.

whereby MTA\_1 controls the interaction between MTA\_0 and MTA\_1 before a .\r\n end-of-message indicator reply from MTA\_0 is received.

- 2) The unsolicited message blocking communications processor in Claim 1, further includes a allow\_address database and wherein the determining means determines if a message is not unsolicited by checking if the IP\_0 is in the allow\_address database.
- 3) The unsolicited message blocking communications processor in Claim 1, further includes a prevent\_address database and wherein the determining means determines if a message is unsolicited by checking if IP\_0 is in the prevent\_address database.
- 4) The unsolicited message blocking communications processor in Claim 1, further includes access to a open relay database and wherein the determining means determines if a message is unsolicited by checking if IP\_0 is in the open relay database.
- 5) The unsolicited message blocking communications processor in Claim 1, further includes access to a DNS (domain name server) database and wherein the determining means determines if a message is unsolicited by checking if IP\_0 has a domain name entry DD\_0 in the DNS database.

- 6) The unsolicited message blocking communications processor in Claim 1, further includes a bad\_from database and wherein the determining means determines if a message is unsolicited by checking if the from-address A\_0 is in the bad\_from database.
- 7) The unsolicited message blocking communications processor in Claim 1, further includes a suspect\_domain database and wherein the determining means determines if a message is unsolicited by checking if the actual domain DD\_0 matches the domain of from-address A\_0 and the domain of from-address A\_0 is in the suspect\_domain database.
- 8) The unsolicited message blocking communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the from-address A\_0 matches the to-address (A\_1).
- 9) The unsolicited message blocking communications processor in Claim 1, further includes a no\_filter database and wherein the determining means determines if the message is to be blocked if it is determined to be unsolicited.
- 10) The unsolicited message blocking communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the declared domain D\_0 of MTA\_0 is the same as the domain D\_1 of MTA\_1.
- 11) The unsolicited message blocking communications processor in Claim 1, wherein the determining means determines if a message is unsolicited by checking if the declared domain D\_0 of MTA\_0 does not match the real domain DD\_1 and the declared domain D\_0 is in the suspect\_domain database.
- 12) The unsolicited message blocking communications processor in Claim 1, further includes a bad\_word database and wherein the determining means determines if a message is unsolicited by checking if the subject line of the message contains any words in the bad\_word database.
- 13) The unsolicited message blocking communications processor in Claim 1, further includes a bad\_fingerprint database and wherein the determining means determines if the hash "fingerprint" of a portion of the message is in the bad\_fingerprint database.
- 14) The unsolicited message blocking communications processor in Claim 1, further includes a rejected\_connection database which logs the time, from-address A\_0, to-

address A\_1, and the reason for the rejection if a message is rejected if the message is determined to be unsolicited.

- 15) The unsolicited message blocking communications processor in Claim 1, further includes a allowed\_connection database which logs the time and to-address A\_1 if the message is determine not to be unsolicited.

16) A method for

a receiving networked computer system with an Internet connection, a mail transport agent MTA\_1, an Internet address IP\_1, to-address A\_1, and an operating system capable of executing the method

to reject unsolicited messages from

a transmitting networked computer system with an Internet connection and a message transfer agent MTA\_0, an Internet address IP\_0, from-address A\_0, declared domain D\_0, and actual domain DD\_0

comprising the steps of:

- a) waiting for a new SMTP connection request;
- b) relaying and monitoring the replies from MTA\_0 to MTA\_1;
- c) relaying replies from MTA\_1 to MTA\_0;
- d) intercepting the .\r\n end-of-message indicator reply from MTA\_0 to MTA\_1;
- e) determining if the message is unsolicited by analyzing the monitored replies;
- f) releasing the intercepted .\r\n end-of-message reply if the message is determined not to be unsolicited; and
- g) sending a error reply to MTA\_0 to force MTA\_0 and MTA\_1 to close down their connection;

whereby MTA\_1 controls the interaction between MTA\_0 and MTA\_1 until a .\r\n end-of-message indicator reply is received from MTA\_0.

17) A method for

a receiving networked computer system with an Internet connection, DNS server, and open relay database, a mail transport agent MTA\_1, IP address IP\_1, a domain name D\_1, a recipient, A\_1, an allow\_address database, a prevent\_address database, a suspect\_domain database, a bad\_from database, a no\_filter database, a yes\_filter database, a bad\_word database, a bad\_fingerprint, a rejected\_connection database, an allowed\_connection database, and an operating system capable of executing the method

to reject unsolicited messages from

a transmitting networked computer system with an Internet connection, a message transfer agent MTA\_0, an IP address of IP\_0, a declared domain name D\_0, a real domain name DD\_0, and a sender address of A\_0

comprising the steps of:

- a) waiting for a SMTP connection request on the receiving networked computer system's Internet connection;
- b) sending a 220 reply to MTA\_0 to acknowledge the requested connection;
- c) extracting IP address IP\_0 from the connection request;
- d) requesting a domain name DD\_0 for IP\_0 from the DNS server;
- e) testing if domain name DD\_0 is "no name";
- f) testing if IP\_0 is in an open relay database;
- g) testing if IP\_0 is in the allow\_address database;
- h) testing if IP\_0 is in the prevent\_address database,
- i) requesting a connection with MTA\_1;
- j) waiting for a 220 reply from MTA\_1 to acknowledge the requested connection;
- k) waiting for a reply from either MTA\_0 or MTA\_1;
- l) jumping to step o) if the reply is not from MTA\_1;
- m) relaying the reply from MTA\_1 to MTA\_0;
- n) jumping to step k) to wait for a new reply;
- o) jumping to step u) if the reply from MTA\_0 is not a **HELO**;
- p) extracting domain D\_0 from the reply;

- q) testing if declared domain D\_0 of MTA\_0 matches domain D\_1 of MTA\_1;
- r) testing if declared domain D\_0 does not match real domain DD\_0 of MTA\_0  
AND declared domain D\_0 is in the suspect\_domain database;
- s) relaying the HELO reply from MTA\_0 to MTA\_1;
- t) jumping to step k) to wait for a new reply;
- u) jumping to step aa) if reply from MTA\_0 is not a **MAIL**;
- v) extracting from-address A\_0;
- w) testing if A\_0 is in the bad\_from database;
- x) testing if DD\_0 does not match the domain of A\_0 and the domain of A\_0 is in  
the suspect\_domain database;
- y) relaying MAIL reply to MTA\_1;
- z) jumping to step k) to wait for a new reply;
- aa) jumping to step ii) if reply from MTA\_0 is not a **RCPT**;
- bb) extracting to-address A\_1;
- cc) testing if A\_1 is in no\_filter database;
- dd) testing if A\_0 matches A\_1;
- ee) testing if A\_0 is in the no\_filter database;
- ff) testing if A\_0 is in the yes\_filter database;
- gg) relaying RCPT reply to MTA\_1;
- hh) jumping to step k) to wait for a new reply;
- ii) jumping to step yy) if reply from MTA\_0 is not **DATA**;
- jj) relaying DATA to MTA\_1;
- kk) waiting for 354 reply from MTA\_1;
- ll) relaying 343 reply to MTA\_0;
- mm) wait for body of message;
- nn) relaying body of message to MTA\_1;
- oo) waiting for .\r\n end-of-message indicator;
- pp) testing if any word in the subject line of the message is in the bad\_word  
database;
- qq) testing if the hash "fingerprint" of a portion of the message is in the  
bad\_fingerprint database;

- rr) jumping to step vv) if NOT(t\_allow OR t\_no\_filter OR OR NOT t\_yes\_filter OR NOT ( t\_prevent OR t\_open OR t\_DD-) OR t\_bad\_from OR t\_suspect\_domain OR t\_echo\_domain OR t\_forged\_domain OR t\_bad\_word OR t\_bad\_fingerprint)) ;
- ss) logging time and to-address A\_1 in the allowed\_connection database;
- tt) relaying the .\r\n end-of-message indicator reply to MTA\_1 to continue the conversation;
- uu) jumping to step k) to wait for a new reply;
- vv) logging the time, from-address A\_0, to-address A\_1, and the reason for rejecting the connection in the rejected\_connection database;
- ww) sending a 554 reply to MTA\_0 to terminate the conversation;
- xx) jumping to step k) to wait for a new reply;
- yy) jumping to step ggg) if reply from MTA\_0 is not **RSET, SEND, SCML, SAML, VRFY, NOOP, EXPN, HELP, or TURN**;
- zz) relaying reply to MTA\_1;
- aaa) jumping to step j) to wait for a new reply;
- bbb) jumping to step ddd) if reply from MTA\_0 is not a **QUIT**;
- ccc) relaying the **QUIT** reply to MTA\_1;
- ddd) waiting for 221 reply from MTA\_1
- eee) relaying 221 reply from MTA\_1 to MTA\_0;
- fff) jumping to step a) to wait for a new connection;
- ggg) sending a 500 reply to MTA\_0 to signal a syntax error; and
- hhh) jumping to step a) to wait for a new connection.